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Detectability of Primordial Black Holes at the Galactic Center with Gravitational Waves

In our work we characterized the expected gravitational wave signal detectable by the planned space-borne interferometer LISA and the proposed next generation spaceborne interferometer μAres arising from a population of primordial black holes orbiting SgrA. *Assuming that such objects indeed form the entire diffuse mass allowed by the observed orbits of stars in the Galactic center (* $< 4 \times 10^3\ M_\odot$ *within a radius of* 10^{-3} *pc from SgrA*), I will present our results in terms of the expected signal in gravitational waves, either from resolved and non-resolved sources under assumptions of circular or eccentric orbits as well as different monochromatic mass functions.

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